

# **BUREAU OF ECONOMIC ANALYSIS DISASTER DAMAGE ESTIMATES**

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**Disaster Damage: National Income and Product Accounts  
Estimates of Value of Structures and Equipment Destroyed**

<b>Disaster</b>	<b>Area Affected</b>	<b>Impact on NIPAs</b>	
		<b>Period</b>	<b>Value destroyed (billions of 1992 dollars at annual rates)<sup>1</sup></b>
<b>Fire</b>	<b>Oakland (CA)</b>	<b>1991: IV</b>	<b>6.1</b>
<b>Hurricane Andrew</b>	<b>Florida &amp; Louisiana</b>	<b>1992: III</b>	<b>63.9</b>
<b>Hurricane Iniki</b>	<b>Hawaii</b>	<b>1992: III</b>	<b>7.9</b>
<b>Winter Storm</b>	<b>24 Eastern States</b>	<b>1993: I</b>	<b>7.9</b>
<b>Floods</b>	<b>9 Midwestern States</b>	<b>1993: III</b>	<b>8.2</b>
<b>Earthquake</b>	<b>Northridge (CA)</b>	<b>1994: I</b>	<b>74.8</b>
<b>Hurricane Opal</b>	<b>Florida &amp; 9 Southern States</b>	<b>1995: IV</b>	<b>8.6</b>
<b>Hurricane Floyd</b>	<b>North Carolina &amp; 4 other States</b>	<b>1999: III</b>	<b>3.4</b>

**Source: BEA estimates, prior to 1999 as shown in the February 1999 Economic Report of the President, Table 2.2.**

# **The Bureau of Economic Analysis (BEA)**

**Estimates Disaster Damage  
to Fixed Tangible Capital,  
e.g., Buildings and Equipment**

## **Examples of Exclusions:**

**Damage to Life & Limb**

**Damage to Nature**

**Repairable Damage**

**Damage to Business Inventories**

**Damage to Consumer Durables such as  
Cars, Appliances, etc.**

**Impact on Sales and Incomes**

**This Is a Methodology That Is  
Consistent with the Definition of  
GDP in the National Accounts.**

**The Exclusions Are Reflected in  
Estimates of GDP to the Extent that  
There is an Impact on the Current  
Level of Economic Activity**

**In most Cases These Are Included in  
the Source Data Used to Compile GDP**

**BEA Estimates Disaster Damage  
When Damage is at Least .25% of  
Consumption of Fixed Capital (CFC) ,  
e.g., for disaster damage at least \$2.6  
billion in 2000**

CFC Is a Charge for the Using Up of  
Private and Government Fixed Capital  
Located in the United States, Which Is  
Defined as the Decline in the Value of the  
Stock of Assets Due to Wear and Tear,  
Obsolescence, Accidental Damage, and  
Aging.

# **Specific Procedures for Estimating Disaster Damage**

## **Two Cases with Similar Methodologies:**

- (1) Most of the Damage is  
Covered by Insurance,  
Primary Sources are the  
American Insurance Services  
Group (AISG) Estimates**
- (2) Most of the Damage is NOT  
Covered by Insurance,  
Primary Sources are usually  
the State Disaster Offices  
and/or the Red Cross**

**Example will Deal with Case 1  
(Most of the Damage Covered by  
Insurance)**

## **Steps with Defaults Used in the Absence of Other Information Listed:**

- (1) Raise AISG Estimates to  
Allow for General  
Underestimating  
(Default, raise estimate by  
20% in general, more for large  
disasters)**
- (2) Split Damage between  
Damage to Housing &  
Damage to Business Property  
(Defaults are a 75-25% split)**

**(3) Reduce Losses to Eliminate  
Non-Capitalized Losses  
(Default is a 25% & a 5%  
reduction)**

**(4) Raise Estimates to Account  
Losses not in the AISG  
Estimates, e.g., uninsured  
losses, deductibles, and  
damage to public utility  
property  
(Defaults are a 35% and 30%  
increase)**

**(5) Distribute the Estimates by  
Industry & Affected Counties**



## **BEA Disaster Estimates**

**New NIPA Table 5.16 (billions of dollars), under “Other changes in volume of assets”**

**Table 2.2 (billions of 1992 dollars),  
Economic Report of the President  
February, 1999**

**See Survey of Current Business,  
September 1992, Box on p. 2, and  
October 1992, pp. 2-4 for an  
Example of BEA Disaster  
Adjustments Relating to  
Hurricanes Andrew & Iniki**

# **Other Bea Data Useful for Disaster Analysis**

**Selected NIPA Data Now Interactively  
Accessible on the Web**

**All Other NIPA Data Available on the Web  
[www.bea.doc.gov](http://www.bea.doc.gov)**

**Regional Accounts Data  
Almost All Interactively Accessible on the  
Web**

**Annual Gross State Product,  
Annual & Quarterly State Personal Income,  
& Annual Local Area Personal Income  
[www.bea.doc.gov/bea/regional/data.htm](http://www.bea.doc.gov/bea/regional/data.htm)**

**Input-Output and Industry Data  
Available on the Web  
Including Annual I-O Data and Recently  
Released GPO Data**

**[www.bea.doc.gov/bea/dn2/ied01-01.htm](http://www.bea.doc.gov/bea/dn2/ied01-01.htm)**

**Handout for 2/06/01 presentation by Barbara M. Fraumeni  
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## **BEA DISASTER DAMAGE ESTIMATES**

**New NIPA Table 5.16 (billions of dollars), under “Other changes in volume of assets”**

**Table 2.2 (billions of 1992 dollars), Economic Report of the President February, 1999**

**See Survey of Current Business, September 1992, Box on p. 2 and October 1992, pp. 2-4 for an Example of BEA Disaster Adjustments Relating to Hurricanes Andrew & Iniki**

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